

PROCEEDINGS  
OF THE  
BIOLOGICAL SOCIETY OF WASHINGTON

*PARACAPRELLA BARNARDI*, A NEW SPECIES OF  
CAPRELLID (CRUSTACEA; AMPHIPODA)  
FROM THE WEST COAST OF PANAMA

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In 1955 J. Laurens Barnard of the Smithsonian Institution had an opportunity to make amphipod collections at Culebra Island, Canal Zone. From rock washings made near the marine railway, numerous specimens of a hitherto undescribed species of *Paracaprella* were obtained. This species is herein described and named in honor of Dr. Barnard.

*Paracaprella barnardi* new species

*Material examined:* Culebra Island, Canal Zone; IV/23/55; ♂ holotype, USNM 120505; ♀ allotype, USNM 120506; 68 ♂, 78 ♀, 19 juvenile paratypes, USNM 120507.

*Diagnosis:* Large males with anterodorsal tubercle on pereonite 2, anterior margin of pereonite 2 with sharp ventrolateral projection, propodus of gnathopod 2 deeply notched.

*Description:* Male holotype (Fig. 1).—Body smooth except for large anterodorsal tubercle and ventrolateral projection on anterior margin of pereonite 2. Length 5.5 mm. Peduncle of antenna 1 inflated and setose, flagellum of 10 articles, basal article of 5 fused articles. Antenna 2 subequal in length to articles 1 and 2 of antenna 1, flagellum of 2 articles. Mandible with only seta as vestige of palp; incisor 5-toothed; right lacinia mobilis apically serrate, left 5-toothed; molar large. Outer lobe of maxilla 1 with 6 apical spines, inner lobe with 3 apical setae and 1 seta on anterior surface. Inner lobe of maxilliped rounded apically and with 2 apical setae; outer lobe with 2 apical setae and several medial setae; penultimate article of palp with distal triangular projection, dactylus with serrate grasping margin and 2 subterminal setae. Propodus of gnathopod 1 with 1 proximal grasping spine, grasping margin of dactylus serrate. Propodus of gnathopod 2 deeply notched with 1 proximal grasping spine; dactylus setose and grooved on grasping margin, lateral side with medial bulge. Gills on pereonite 3 larger than those of pereonite 4. Pereopods 3 and 4 2-segmented, terminal article with 2 or 3 setae, penultimate article with or without setae. Pereopods

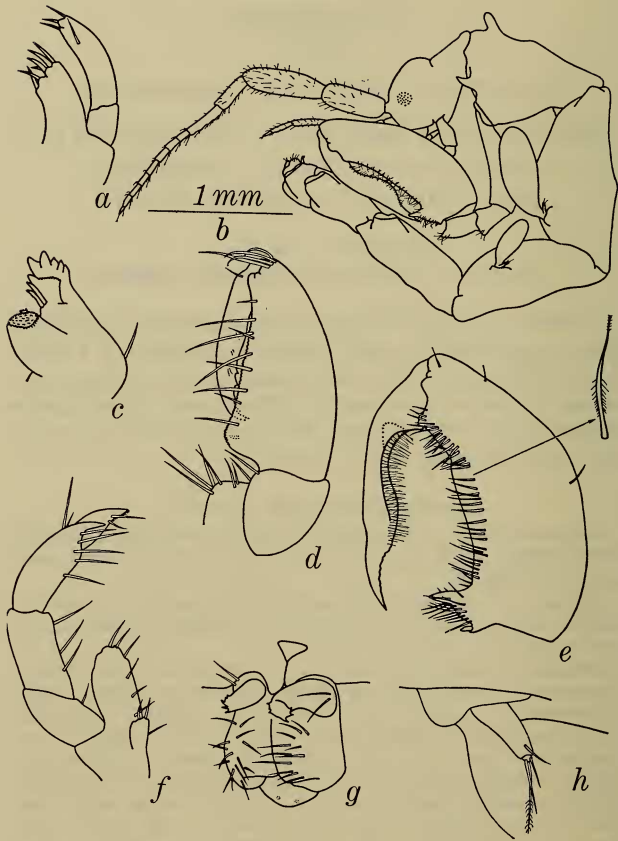


FIG. 1. *Paracaprella barnardi*, male holotype. a, maxilla 1; b, lateral view; c, right mandible; d, gnathopod 1; e, gnathopod 2; f, maxilliped; g, abdomen; h, pereopod 4.

5-7 missing. Abdomen with pair of apically serrate appendages and pair of setose lobes.

Female allotype (Fig. 2).—Body smooth. Length 3.8 mm. Antennae similar to male except peduncle of antenna 1 not inflated. Mouthparts

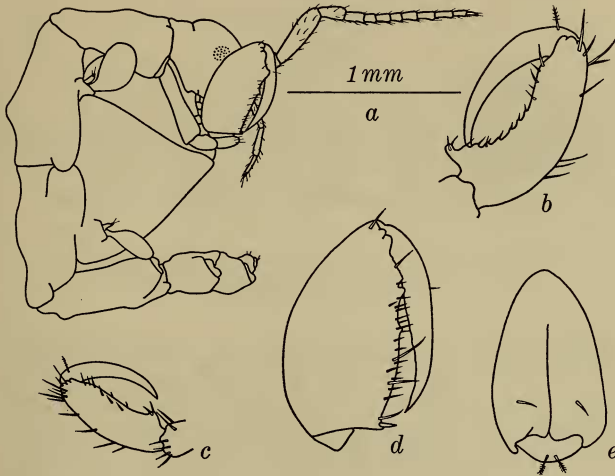


FIG. 2. *Paracaprella barnardi*, female allotype. a, lateral view; b, pereopod 7; c, pereopod 5; d, gnathopod 2; e, abdomen. (b and c drawn at same scale).

similar to male except inner lobe of maxilliped with 3 apical setae. Gnathopod 1 as in male. Propodus of gnathopod 2 slightly convex with proximal grasping spine, distal tubercle, and mid-distal tubercle. Gills on pereonite 3 larger than those of pereonite 4. Pereopods 3 and 4 similar to male. Propodus of pereopod 5 with pair of proximal grasping spines. Propodus of pereopods 6 and 7 with numerous knobs, each with single seta; pereopods 6 and 7 larger than pereopod 5. Abdomen with pair of lobes bearing single seta.

**Variation:** The largest male was 5.5 mm, largest female 4.4 mm, and the smallest ovigerous female 2.8 mm. Figs. 3a-c shows the variation in the depth of the propodal notch, larger males having a deeply notched propodus and smaller males showing a progressive decrease in the depth of the notch. The anterodorsal tubercle on pereonite 2 also was proportional to size, larger males having larger tubercles (Figs. 3d-f).

**Remarks:** The genus *Paracaprella* was hitherto composed of 4 species: *P. alata* Mayer, 1903; *P. crassa* Mayer, 1903; *P. pusilla* Mayer, 1890; and *P. tenuis* Mayer, 1903. Large males of *P. barnardi* differ from these species by the presence of a large anterodorsal tubercle on pereonite 2, a sharp ventrolateral projection on the anterior margin of pereonite 2,

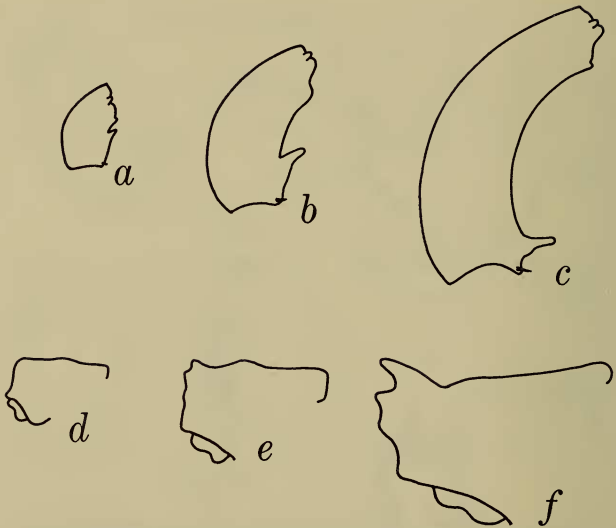


FIG. 3. Variation of propodus of gnathopod 2 (a-c) and anterodorsal tubercle on pereonite 2 (d-f). (a and d = ♂, 2.8 mm in length; b and e = 3.9 mm, c and f = 5.3 mm).

and a deeply notched propodus of gnathopod 2. *P. pusilla* seems to be the most closely related species of this genus. Occasionally *P. pusilla* bears a small anterodorsal tubercle on pereonite 2, however, the tubercle is not as well developed as in *P. barnardi* and the ventrolateral projection on the anterior margin of pereonite 2 is much larger in *P. pusilla*.

The lateral views of the holotype and allotype show the characteristic body curling of most members of this genus when they are preserved. This peculiar habit makes *Paracaprella* relatively easy to sort from other caprellids.